

Claims 1 through 18, 21 through 23, and 26 through 39 were rejected under 35 U.S.C. § 102(e) as being unpatentable over Yu (U.S. Patent No. 6,353,237). Claims 19, 20, 24, and 25 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Yu (U.S. Patent No. 6,353,237). Applicants respectfully traverse these rejections.

The invention of U.S. Patent No. 6,353,237 to Yu teaches an electrostatic discharge (ESD) protection device. The ESD protection device includes an SCR 4 comprising a pair of bipolar junction transistors 40,41. In addition to the bipolar junction transistors, a structure separate and distinct from the SCR bipolar transistors comprising an N-type doped region 36 is laid out in the P-type semiconductor layer 30 so as to establish a junction 37 (col. 3, lines 27-34; Figs. 3 and 5). This N-type doped region and P-type semiconductor layer serve as the cathode and anode of a diode 6 (col. 3, line 67 through col. 4, line 2). *Yu teaches that in operation the diode junction breaks down at substantially the breakdown voltage of the diode. This diode junction breakdown current then turns on transistor 41 thus triggering the SCR 4.*

In contradistinction, independent claim 1 claims the present invention as a device comprising a pair of complementary bipolar transistors fabricated *such that a reach-through effect across the base of at least one of the complementary bipolar transistors causes triggering of the device*. Independent claim 7 similarly recites first and second transistors and an avalanche junction wherein one of the first and second transistors is characterized by attaining a reach-through voltage prior to the avalanche junction attaining the avalanche junction breakdown voltage. Independent claim 26 similarly recites a structure of lightly and heavily doped regions of first and second conductivity types and an avalanche junction *wherein a reach-through effect occurs prior to an avalanche junction breakdown across the avalanche junction*. Yu teaches a separate diode structure whereas Applicants claims recite SCR bipolar transistor structure. Yu teaches diode junction breakdown of the separate diode structure, whereas Applicants claims

with breakdown found in Yu. Any definition offered by Applicants in the specification is completely consistent in distinguishing reach-through from breakdown and it is an improper characterization in the Office Action that the PN junction breakdown discussed in Yu is the reach-through effect according to Applicants' definition.

In summary, the present invention SCR is triggered by:

reach-through across the base of at least one of the transistor structures.

And the SCR taught by Yu is triggered by:

breakdown across the junction of a distinct diode structure that is not a part of one of the SCR transistors.

Reach-through of a base of a SCR transistor of the present invention is not breakdown of a separate diode of Yu. These differences are adequately portrayed in the claims and specification as originally presented. It is erroneous that the Office Action equates the structures and effects claimed by Applicants to the structures and effects taught by Yu. It is erroneous that the Office Action alleges that Yu teaches each and every element of the Applicants' invention.

The United States Court of Appeals for the Federal Circuit (CAFC) has stated that a claim is anticipated only if each and every element as set forth in the claims is found, either expressly or inherently described, in a single prior art reference. See Verdegaal Bros. v. Union Oil Co. of California, 814 F.2d 628, 631, 2 U.S.P.Q.2d 1051, 1053 (Fed. Cir. 1987). It is respectfully submitted that independent claims 1, 7 and 26 are not anticipated by Yu since each and every element as set forth therein is not taught or suggested by Yu.

For the reasons stated above, the remaining claims which all depend from the independent claims 1, 7 or 26 are not anticipated by Yu or rendered obvious by Yu as asserted in the Office Action. Based on the above, it is respectfully submitted that the claims are in a condition for allowance.

A careful reconsideration and withdrawal of all rejections is respectfully requested.

Respectfully submitted,



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